Amendments to the Specification

Please amend paragraphs [0009] and [0034] of the specification as follows:

[0009]   The present invention provides a method and architecture for accepting any arbitrary data stream (for example IEEE 1394b, USB, USB1, or USB2 data) and transmitting it to a 1000BASE-T physical layer for transmission as a 1000BASE-T stream. In an exemplary embodiment, a method and an architecture are disclosed for transmitting an 800Mbps ("S800") IEEE 1394b data up to 100 meters using 1000BASE-T transmission technology and IEEE ~~803.2~~ 802.3 standards. In an alternate embodiment, a method and architecture are disclosed for transmitting any arbitrarily encoded data stream using 1000BASE-T transmission technology and IEEE ~~803.2~~ 802.3 standards.

[0034]   FIGS. 5A and 5B more specifically illustrate where the 1394b S800 data stream 115 is tapped from the 1394b S800 PHY. FIG. 5A illustrates a typical beta mode function block. The 1394b S800 data stream 115 includes data symbols 501, request symbols 503, and control symbols 505. The data symbols 501 and ~~control~~ request symbols 503 are 8 bits each, while the control symbols 505 are 4 bits each. The beta mode function scrambles, encodes, and combines the various 1394b S800 data stream symbols and prepares them for transmission on a selected physical medium (PMD). These specific functions are illustrated in FIG. 5A and include request byte mapper 502 and control byte mapper 504, a scrambler 510, an 8B/10B coder 520, and a multiplexer 530. FIG. 5B illustrates a preferred embodiment of the invention where both the scrambler 510, and the 8B/10B encoder 520 are bypassed. The 1394b S800 data stream 115, essentially in raw form, is sent

directly in parallel to the reconciliation sub-layer 150 for data rate
matching before it is sent on the 1000BASE-T PHY 104.